Abstract

In a grating-assisted coupler, the mode of the first waveguide of the coupler may include some electric field in the second waveguide, with the effect that when light lasses from an input waveguide to the first waveguide, some light is launched, or injected, directly into the mode of the second waveguide. This injected light may or may not be in phase with the light subsequently coupled into the side of the second waveguide from the first waveguide via grating assistance. The grating structure is formed to ensure a desired phase relationship between the injected light and the grating coupled light: under certain conditions of relative phase, the transmission through the coupler may be increased and the bandwidth may be reduced.